

## NMC Updates Teat Dipping Testing Methods

According to the National Mastitis Council, it has revised its procedures for suggested testing of the effectiveness of teat dips.

Although it does not test teat dips, NMC makes recommendations to business which do.

As part of a continuing program, the council offers a monthly column about mastitis. The most recent column follows:

Postmilking teat dipping is one of the most effective management practices to prevent mastitis.

Numerous products are marketed as teat dips, however no government agency requires data to establish whether a particular teat dip effectively reduces the incidence of new intramammary infections (efficacy data).

Several years ago, the National Mastitis Council (NMC) developed protocols to provide teat dip manufacturers with standardized test methods for determining teat dip efficacy.

The protocols detail experimental design; selection of herds, cows, and quarters; preparation of bacterial cultures; teat dipping; sampling schedule and procedures; criteria for diagnosing infections; size and duration of trial; and presentation of data.

Teat dip efficacy studies are conducted under either 1) experimental challenge conditions, or 2) natural exposure conditions.

"Experimental challenge studies" evaluate the ability of a teat dip to prevent new intramammary infections when teats are experimentally challenged with mastitis pathogens. Teats are experimen-



tally challenged by immersion in a bacterial suspension containing specific pathogens immediately after milking units are removed. This protocol determines efficacy under experimental conditions only.

"Natural exposure studies" evaluate the ability of a teat dip to prevent naturally occurring infections in cows under normal field conditions. Natural exposure with a negative control compares a new teat dip product to no teat dipping. Natural exposure with a positive control compares a new teat dip product to a teat dip of known efficacy.

The original NMC protocols, developed in the 1970's, were designated A, B, and C.

Protocol A, intended as a screening test only, measured bactericidal activity of a teat dip formulation on teat skin.

Protocol B outlined procedures to determine ability of a teat dip to prevent infections under experimental challenge conditions.

Protocol C outlined procedures to determine ability of a teat dip to prevent natural infections under normal field conditions.

NMC recently revised the protocols to enhance scientific merit,

reflect new technologies, and further ensure standardization of test procedures. The previous alphabetical name designations (A, B, and C) were dropped and changed to identify the investigative method used.

The revisions do not invalidate or change the meaning of previous efficacy studies, or require that they be redone.

NMC currently recommends the following protocols: 1) Efficacy of a Postmilking Teat Dip After Experimental Exposure of Teats to Mastitis Pathogens (compares to former protocol B); 2) Efficacy of a Postmilking Teat Dip Based on Reduction of Naturally Occurring New Intramammary Infections (compares to former protocol C, using a negative control); and 3) Comparing an Experimental Postmilking Teat Dip with a Product of Known Efficacy Based on Incidence of Naturally Occurring New Intramammary Infections (compares to former protocol C, using a positive control).

Note that former Protocol A is no longer recommended.

NMC does not test or approve teat dips - NMC only recommends protocols for manufacturers to use

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## How Does Your Herd Compare?

STATE COLLEGE (Centre Co.) — This data is pulled from Pennsylvania DHIA's mainframe computer each week. It is a one-week summary representing approximately one-fourth of the herds on test, as they are tested monthly.

These data are valuable from a business management standpoint and can be used for comparing your operations to the averages from almost 1,400 herds across the state.

DHIA Averages for all herds processed between 4/22/91 and 4/29/91

Number of Herds Processed	1,421
Number of Cows Processed	82,909
Number of Cows Per Herd	58.3
Milk Per Cow (Lbs)	17,491
%-Fat	3.67
Fat Per Cow (Lbs)	643
%-Protein	3.19
Protein Per Cow (Lbs)	558
Average Days in Milk Per Cow	316
*Value for CWT Milk(\$)	13.35
*Value for CWT Grain(\$)	7.84
*Value for CWT Hay(\$)	4.26
*Value for CWT Silage(\$)	1.55
*Value for Pasture Per Day(\$)	.31
*Value for Milk Per Cow Per Year(\$)	2,335
*Feed Consumed Per Cow Per Year(Lbs)	
A: Grain	7,112
B: Hay	2,537
C: Silage	14,668
D: Day Pasture	69
*Feed Cost Per Cow Per Year(\$)	
A: Grain	557
B: Hay	108
C: Silage	227
D: Pasture	21
*Total Feed Cost Per Cow Per Year(\$)	915
*Income Over Feed Costs Per Year(\$)	1,420
*Grain to Milk Ratio	1:2.4
*Feed Cost Per CWT Milk(\$)	5.23
Avg Level For 1,151 SCC Herds	328,872

\*Member generated figures

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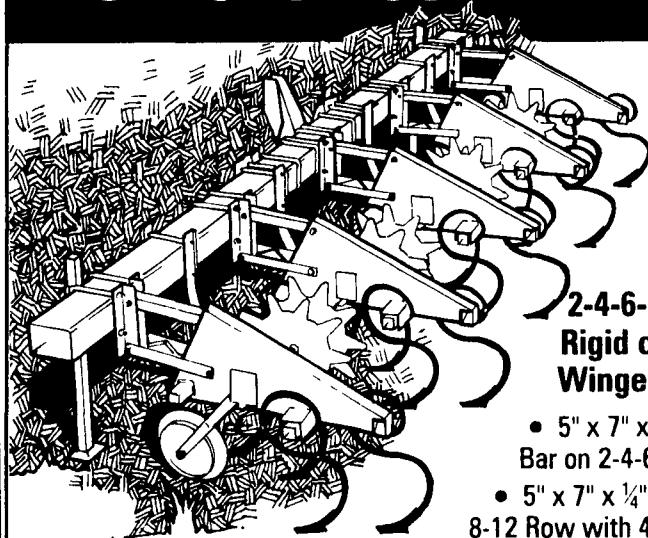
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